

# **STRETCHING EXERCISER**

## **BACKGROUND OF THE INVENTION**

### **1. Field of the Invention**

5           The present invention relates generally to an exercising machine and, more specifically, to a stretching exerciser.

### **2. Description of the Related Art**

          A conventional stretching exerciser is known comprising a base, a leg  
extension bar located on the base, an upright extended upwardly backwards from the  
10   base, and a back cushion fixedly located on the top end of the upright. When in use, the  
user hook the legs on the leg extension bar and rest the back on the back cushion, and  
then alternatively bending the body backwardly downwards and lifting the head and  
the upper part of the body.

          This design of stretching exerciser is not satisfactory in function. When the  
15   user is curving the body to stretch the muscles, the back cushion is not curved with the  
user's body to positively support the user's back, and the user's body may feel  
uncomfortable. Further, this design of stretching exercise can simply exercise the  
muscles of the user's back and abdomen. It is not practical to exercise the muscles of  
the other part of the body.

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## **SUMMARY OF THE INVENTION**

          The present invention has been accomplished under the circumstances in  
view. It is the main object of the present invention to provide a stretching exerciser,  
which is safe and comfortable in use.

25           It is another object of the present invention to provide a stretching exerciser,

which provides various operation modes for enabling the user to exercise the muscles of the whole body.

To achieve these objects of the present invention, the stretching exerciser comprises a base for positioning on the floor; a seat bar having a bottom end pivoted to the base and a top end; a back cushion fastened pivotally with the top end of the seat bar and forwardly backwardly turnable relative to the seat bar, the back cushion being closely attached to the seat bar due to the effect of the gravity weight thereof when receiving no external force; a seat mounted on the seat bar below the back cushion; and a spring bar for supporting the seat bar on the base in a backwardly tilted position, the spring bar having a bottom end coupled to the base and a top end coupled to the seat bar.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1 is a perspective view of a stretching exerciser according to the present invention.

FIG. 2 is a schematic side view of the present invention, showing the adjustment of the positions of the back cushion and the base.

FIG. 3 is another schematic side view of the present invention, showing the receiving operation of the stretching exerciser.

FIG. 4 is a schematic drawing showing one application example of the present invention.

FIG. 5 is a schematic drawing showing another application example of the present invention.

FIG. 6 is a schematic drawing showing still another application example of the present invention.

FIG. 7 is a schematic drawing showing still another application example of the present invention.

FIG. 8 is a schematic drawing showing still another application example of the present invention.

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## **DETAILED DESCRIPTION OF THE INVENTION**

Referring to FIGS. 1 and 2, a stretching exerciser in accordance with the present invention is shown comprised of a base 10, a seat bar 20, a back cushion 30, a seat 40, a spring bar 50, and two elastic cord members 60.

10        The base 10 is a substantially I-shaped framework comprising a front transverse bar 11, a rear transverse bar 12, and a longitudinal bar 13 connected between the front transverse bar 11 and the rear transverse bar 12. According to the present preferred embodiment, the longitudinal bar 13 is a retractable rectangular bar so arranged that the front transverse bar 11 can be moved forwards/backwards relative to  
15   the rear transverse bar 12 (see the imaginary line shown in FIG. 2) and then locked by a lock screw 14 at the retractable longitudinal bar 13. An upright lug 15 is located on the longitudinal bar 13 at the top. Pulleys 16 are respectively provided at the ends of the front and rear transverse bars 11 and 12. A leg extension bar 17 is provided at the front transverse bar 11.

20        The seat bar 20 according to the present preferred embodiment is a retractable rectangular bar provided with a lock screw 25 at the right side for locking the seat bar 20 at the desired length. A pivot 21 is transversely extended through the bottom end of the seat bar 20 to pivotally secure the seat bar 20 to the upright lug 15, for enabling the seat bar 20 to be turned back and forth relative to the base 10. A first

barrel **22** and a second barrel **23** are fixedly horizontally provided at the front side of the seat bar **20** at different elevations. An axle **26** is selectively and detachably inserted through the first barrel **22** or the second barrel **23**. A third barrel **24** is fixedly horizontally provided at the back side of the seat bar **20** above the elevation of the first barrel **22**, which is spaced above the second barrel **23**.

The back cushion **30** is a rectangular pad of soft material, having a back frame **31** pivotally fastened to the top end of the seat bar **20** with a pivot **32**. Therefore, the back cushion **30** can be turned relative to the seat bar **20** between a substantially vertical position (see the solid line shown in FIG. 2) and a substantially horizontal position above the top end of the seat bar **20** (see the imaginary line shown in FIG. 2). Due to the effect of the gravity weight, the back cushion **30** is normally supported on the seat bar **20** in the substantially vertical position.

The seat **40** comprises a seat pad **41** and two parallel seat frame bars **42** fixedly provided at the bottom side of the seat pad **41**. The rear ends of the seat frame bars **42** protrude over the rear side of the seat pad **41** and respectively pivotally connected to the two ends of the third barrel **24** by a pivot pin **43**, keeping the seat pad **41** at the front side of the seat bar **20** for sitting. The axle **26** is selectively and detachably inserted through the first barrel **22** or the second barrel **23** to support the seat frame bars **42** between two positions.

The spring bar **50** is adapted to support the seat bar **20** in a backwardly tilted position, having a bottom end fastened pivotally with the longitudinal bar **13** of the base **10** and a top end detachably pivotally fastened to the back side of the seat bar **20** by a lock pin **51**.

The two elastic cord members **60** are longitudinally provided at two sides of the base **10** and respectively extended through the pulleys **16**, each having two end

pieces **61** at the respective two distal ends. Two loop handles **62** are respectively and detachably fastened to the front ends or rear ends of the elastic cord members **60** for the holding of the user's hands or the hooking of the user's legs.

Before use, the retractable longitudinal bar **13** and the retractable seat bar **20**  
5 are respectively adjusted to the desired length and then locked, so that the user can hook the legs on the leg extension bar **17** and rest the back on the back cushion **30** comfortably. When in use, the user can exercise the body in one of a variety of operation modes as outlined hereinafter.

1. As shown in FIG. 4, the user can rest the back on the back cushion **30** and  
10 hook the legs on the foot extension bar **17**, and then alternatively stretch and release the body to exercise the muscles of the back and the abdomen.

2. As shown in FIG. 5, the user can sit on the seat **40**, hook the legs on the leg extension bar **17**, and hold the loop handles **62** with the hands after the loop handles **62** have been respectively fastened to the end pieces at the rear ends of the  
15 elastic cord members **60**, and then pull the loop handles **62** forwardly upwards to stretch the elastic cord members **60**, so as to exercise the muscles of the shoulders and the arms.

3. As shown in FIG. 6, the user can sit on the seat **40** and hold the loop handles **62** with the hands after the loop handles **62** have been respectively fastened to  
20 the end pieces at the front ends of the elastic cord members **60**, and then pull the loop handles **62** upwards to stretch the elastic cord members **60**, so as to further exercise the muscles of the shoulders and the arms.

4. As shown in FIG. 7, the user can sit on the seat **40** and hook the legs on the loop handles **62** after the loop handles **62** have been respectively fastened to the  
25 end pieces at the front ends of the elastic cord members **60**, and then alternatively lift

the legs to stretch the elastic cord members 60, so as to further exercise the muscles of the legs.

5 5. As shown in FIG. 8, the user can stand on the rear transverse bar 12 of the base 10 and then pull the loop handles 62 upwards to stretch the elastic cord members 60 after the loop handles 62 have been respectively fastened to the end pieces at the rear ends of the elastic cord members 60, so as to further exercise the muscles of the arms.

10 6. The user can also rest the back on the back cushion 30, hook the legs on the leg extension bar 17, and hold the loop handles 60 with the hands after the loop handles 62 have been respectively fastened to the end pieces at the rear ends of the elastic cord members 60, and then simultaneously or alternatively lift the loop handles 62 to stretch the elastic cord members 60 when alternatively stretching and releasing the body, so as to exercise the muscles of the arms, the back, and the abdomen.

15 Further, the user can also rest the abdomen on the back cushion 30 and hold the leg extension bar 17 with the hands, and then perform push-and-pull to exercise the muscles of the arms and the chest.

20 When not in use, as shown in FIG. 3, the lock pin 51 is removed from the spring bar 50 and the seat bar 20, and then the spring bar 50 and the seat bar 20 are turned downwards toward the base 10 to a received position in parallel to the base 10, and then remove the axle 26 from the seat bar 20 for enabling the seat 40 to be turned to the received position in parallel to the collapsed seat bar 20.

25 While only one embodiment of the invention has been shown and described, it will be understood that various modifications and changes could be made thereunto without departing from the spirit and scope of the invention. Accordingly, the invention is not to be limited except as by the appended claims.